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TRADE IN INFORMATION SERVICES IN ASIA, ASEAN, AND THE PACIFIC: CONCEPTUAL ISSUES AND POLICY EXAMPLES

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ABSTRACT

This article discusses several critical issues concerning international trade in services, particularly international trade in telecommunications services. Part I of the article discusses the importance of telecommunications and information services in today's economies, especially in the economies of developing countries. Part II presents the issues including the dichotomy between trade in services versus direct foreign investment, transborder data flows as international trade, the role of international organizations in international trade in services, the merger of computing and telecommunications services, standard setting for integrated services digital networks services, and the role of the Uruguay Round of the GATT in trade in services. Part III then presents a case study of economic relations between the seven ASEAN countries and the United States which devoted considerable attention to the issues of trade in services. The article concludes with suggested policies for dealing with international trade in telecommunications services.

INTRODUCTION

The purpose of this article is to cast light on the most vital sector of international trade in services—telecommunications and information services. Services trade has increased greatly in recent years, challenging the models, assumptions, and conclusions derived from earlier international trade theories more suitable for trade in goods than trade in services.

Part I sets the stage by viewing telecommunications services not in isolation but rather as a part of the rich matrix of information-based services that have revolutionized international trade and ushered in the information age. The intellectual development of the role of information in the economy and in the process of economic development is briefly traced.

The major trade issues concerning information-based services are discussed in Part II. Surprisingly, there are several unsolved disagreements and uncertainties among experts concerning the definition and role of trade in services in national income accounting and in economic growth and development. These uncertainties are particularly acute in the case of information-based services. The most important issue deals with the tendency to treat some types of international trade as direct foreign investment (DFI). The role of various international organizations—particularly the General Agreement on Tariffs and Trade (GATT) and the

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International Telecommunication Union (ITU)—in fostering and regulating international trade in services will be examined as they relate to the development of ideas, policy, and regulation of trade in information services. Other issues discussed include transborder data flow (TBDF), standard setting, and the merger of telecommunications and computing technologies.

Part III amplifies and illustrates the paper with a case study of the member states of the Association of Southeast Asian Nations (ASEAN), which recently cooperated with scholars from the United States and elsewhere to examine improved trade and economic relations between its six member states—Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand—and the United States. Finally, Part V contains conclusions.

I. CONCEPTUAL UNDERPINNINGS OF TELECOMMUNICATIONS AND INFORMATION SERVICES

The notion of information as an economic commodity developed gradually following completion of the Industrial Revolution. Information is more easily characterized by reference to the sectors of the economy in which it predominates than by an explicit definition. Only in a technical setting—electrical engineering and computer sciences in particular—did seminal work by non-economists such as Shannon and Weaver give rise to formal definitions of information content, such as the bit.¹

Economists such as Machlup and Arrow were instrumental in gaining the reluctant acceptance by the economics profession of information as a formal subdiscipline by the mid-1970s. An important milestone was Porat's multivolume study of the role of information in the U.S. economy, which followed up on work by Machlup and employed national income accounting data and input-output techniques. Porat's study, commissioned by the U.S. Department of Commerce, concluded that the share of U.S. gross national product attributable to the information "sector" amounted to 21 percent in 1967, the latest year for which he was able to assemble sufficiently precise data.² All subsequent research indicates that this figure has increased significantly since that time in the United States and elsewhere. Methodological treatments drawing on Porat's work have been carried out for a number of countries and regions, including several in Asia and the Pacific.³

The extent of the information sector has served as a barometer of structural change in the process of economic development. Many economists and other authorities, in fact, argue that the rise of an information sector in the industrialized countries of the late twentieth century—one which by now

1. See CLAUDE E. SHANNON & WARREN WEAVER, *THE MATHEMATICAL THEORY OF COMMUNICATION* (1949).

2. OFFICE OF TELECOMMUNICATIONS, U.S. DEP'T OF COMMERCE, OT SPECIAL PUB. NO. 77-12(1), *THE INFORMATION ECONOMY: DEFINITION AND MEASUREMENT* 53 (1977).

3. See *THE COST OF THINKING: INFORMATION ECONOMIES OF TEN PACIFIC COUNTRIES* (Meheroo Jussawala, et al. eds., 1988).

exceeds the output of the manufacturing sector in all such countries—constitutes an information or communications “revolution” comparable in scope and import to the Industrial Revolution of the nineteenth century. It is the latter transformation which, aided by steam power, the factory system, and various other technical and managerial innovations, first raised the contribution of the manufacturing sector to the economic output of the wealthier nations above that of agriculture.

Thus, it is almost a tautology to note that developing countries lag behind their industrialized neighbors by the extent to which the developing country economies fail to use, produce, import and export information-intensive goods and services. While today, economic policy-makers, practitioners and theoreticians alike broadly agree that any successful strategy of economic development must be based in large part on the information sector, such a view was not unanimous until the early 1980s. Rather, it was the view of a small but growing and vocal minority. The patient, astute, and expert advocacy of this information “lobby” eventually prevailed. Previously, national and international lending institutions, such as the U.S. Agency for International Development (USAID) and the World Bank, exhibited considerable skepticism of the role of information infrastructure in the process of economic development. This skepticism was rooted in the invisibility and incorporeality of information and telecommunications services vis-a-vis the visual splendor of more tangible sectors such as agriculture, education, energy, health and transportation.

Today’s consensus points to the necessity of information and telecommunications in the more complete establishment of a market economy to replace barter and subsistence agriculture in rural areas of the developing world. There is increasing recognition that information infrastructure is a vital prerequisite for economic development rather than merely a desirable side effect.⁴ In particular, telecommunications links and services act as the nerve center of the modern industrial economy, and the information sector can be analogized as the brain in which that center is located.

Information is difficult to define, and its manifold properties lie to a considerable extent in the eye of the beholder. For this reason, information is more trenchantly characterized by reference to the industries in which it appears to predominate. According to the U.S. Department of Commerce, a number of service industries are important exporters from the United States. These are: accounting, advertising, banking, communications (including telecommunications), computers, construction, education, engineering, employment, franchising, health, insurance, law, motion pictures, shipping (including air transportation), and tourism.⁵ Casual

4. Marcellus S. Snow, *Regulation to Deregulation: The Telecommunications Sector and Industrialization, With Evidence from the Pacific Rim and Basin*, 9 TELECOMMUNICATIONS POL’Y 281, 287-88 (1985).

5. LAWRENCE B. KRAUSE, U.S. ECONOMIC POLICY TOWARD THE ASSOCIATION OF SOUTHEASTERN ASIAN NATIONS: MEETING THE JAPANESE CHALLENGE 57 (1982).

reflection suggests that a salient aspect of each of these industries—with the possible exception of construction—is their intensive use of information as a factor of production. Indeed, “international transactions in services tend to be organized around information and its exploitation.”⁶

II. TRADE ISSUES IN INFORMATION-BASED SERVICES

The following are some of the most important issues that have arisen among countries importing and exporting services with a considerable information content. As was pointed out in the previous section, telecommunications must be considered within the broader setting of information, and there are few if any internationally traded services that are not substantially based on information and its exploitation.

A. *Trade in Services vs. Direct Foreign Investment (DFI)*

Until recently the thorny issue of defining international trade in information-intensive services has been skirted through various stratagems. International telecommunications circuits linking two countries, for example, were idealized as consisting of two parts. One “half-circuit” proceeded from country A to the hypothetical midpoint of the link (in mid-ocean for a cable or in mid-orbit for a geosynchronous communications satellite) and then back to country A. A second “half-circuit” was defined analogously for country B. Thus, no trade took place because, at least conceptually, no service “flowed” from one country to the other. The “exchange” of services, such as it was, was idealized as taking place either in mid-ocean or 36,000km above the equator.

More recent efforts to define international trade in services, and to relate it to the confusingly similar phenomenon of DFI, have borne some fruit. The Organization for Economic Cooperation and Development (OECD), for example, defines traded services as “services essentially produced in one country and paid for by residents of another country.”⁷ Stern and Hoekman, in particular, point out the many conceptual issues still to be resolved concerning the nature of trade and investment in information-based services.⁸ Lee and Naya advance useful arguments for DFI as a supplement to, or

6. Brian Hindley & Alasdair Smith, *Comparative Advantage and Trade in Services*, 7 WORLD ECON. 369-89 (1984), quoted in (Tsao) Yuan Lee, *ASEAN-U.S. Trade in Services in the Asia-Pacific Region*, in TRADE AND INVESTMENT IN SERVICES IN THE ASIA-PACIFIC REGION 120 (Chung H. Lee & Seiji Naya eds., 1988).

7. JONATHAN D. ARONSON & PETER F. COWHEY, WHEN COUNTRIES TALK: INTERNATIONAL TRADE IN TELECOMMUNICATIONS SERVICES 239 (1988).

8. Robert M. Stern & Bernard M. Hoekman, *Conceptual Issues Relating to Services in the International Economy*, in TRADE AND INVESTMENT IN SERVICES IN THE ASIA-PACIFIC REGION 7-25 (Chung H. Lee & Seiji Naya eds., 1988).

substitute for, trade in services in the process of economic development.⁹

First, Lee and Naya differentiate between services trade and DFI by distinguishing three ways in which "international services transactions" can occur:

(1) Resident firms or individuals provide services to nonresident firms or individuals across national boundaries; (2) resident firms or individuals provide services to nonresident firms or individuals within national boundaries; and (3) some services—that is, the use of intangible properties—are transmitted across national boundaries through contractual arrangements.¹⁰

These types of transactions do not constitute DFI in services since they "do not require the establishment of foreign affiliates" or "the long-term movement of factors of production."¹¹

DFI contrasts in important ways with trade in services. It is the inseparability of production and consumption in trade in services that "accounts for the importance of DFI as a means of selling services in foreign markets."¹² Recent increases in DFI in services, as well as rises in trade in services, can be traced to conventional movements of relative factor endowments as well as changes in technology and transportation costs.

It is the function of the foreign affiliate in minimizing the transaction cost of direct trade that is the major factor in determining the mix of DFI and trade in services that is observed:

Establishing a service affiliate in a foreign country, which is the purpose of DFI, is a way of reducing the transaction cost of exporting services. They can be provided by the affiliate to firms and individuals residing in the foreign country, and the international movement of providers or receivers of services need not take place for every transaction. The initial transaction cost of establishing the affiliate can be amortized over its life, and consequently services can be provided at a lower cost than if they were exported by the parent firm.¹³

If economies of scale are exhausted sooner for a "service firm" in the exporting country than for its various "service establishments" in host countries, then DFI in services may be preferred to trade. In this sense a

9. Chung H. Lee & Seiji Naya, *Patterns of Trade and Investment in Services in the Asia-Pacific Region*, in *TRADE AND INVESTMENT IN SERVICES IN THE ASIA-PACIFIC REGION* 27-52 (Chung H. Lee & Seiji Naya eds., 1988).

10. Lee & Naya, *supra* note 9, at 29.

11. *Id.*

12. *Id.* at 30.

13. *Id.* at 31.

foreign affiliate is "simply an establishment located in a foreign country."¹⁴ It should be noted that DFI is a sensitive issue for developing countries. They regard the concept of "national treatment," namely non-discrimination between foreign and domestic service suppliers, as applicable to goods rather than services. In addition, infant-industry arguments are advanced by developing countries to oppose the establishment of foreign-owned service affiliates. These views contrast starkly with those of the United States, the European Community (EC), and Japan, all of which favor non-discriminatory DFI in services as well as goods.¹⁵

In according separate treatment to trade in services and DFI in services one can, finally, distinguish between

the competitiveness of a country in service industries and the competitiveness of its firms in the same industries in the world market. A country's comparative advantage in service industries is location-specific, whereas firms' competitiveness in the world market is firm-specific and not bound to a particular location.¹⁶

Other researchers argued that this and other definitional issues would be used at the present Uruguay Round of the GATT by opponents of trade liberalization.¹⁷ Such opponents would, it was predicted, insist on complete definitional coverage of trade and DFI in services before acceding to any substantive trade agreements. The United States, by contrast, maintained that the insights of the GATT discussion themselves would iterate into progressive clarity on definitional issues as the talks proceed. While noting a "general consensus that services are becoming more tradable," Aronson and Cowhey conceded that "there can be no GATT agreement on services without de facto treatment of investment."¹⁸

B. Transborder Data Flow (TBDF)

This form of international trade became a subject of vital concern and frequent conferences and consultations among academics, policy makers, and the international user community long before it was well understood or explained in the context of international trade theory. Some of the best analyses to date are those of Cheah,¹⁹ Jussawalla,²⁰ and Jussawalla and

14. *Id.*

15. K.A. Koekkoek, *Trade in Services, the Developing Countries, and the Uruguay Round*, 11 WORLD ECON. 154 (1988).

16. Lee & Naya, *supra* note 9, at 31.

17. *See, e.g.*, ARONSON & COWHEY, *supra* note 7, at 238.

18. ARONSON & COWHEY, *supra* note 7, at 240 (emphasis omitted).

19. Chee-wah Cheah, *An Economic Analysis of TDF Regulation*, 8 TRANSNAT'L DATA REP. 475-79 (1984).

Cheah²¹.

Typical examples of TBDF include data transmitted for commercial purposes using public international data channels; the transmission over private leased lines of data from a developing to a developed country for storage or processing in the latter; and data communications between the headquarters of a multinational corporation and one of its overseas subsidiaries.

Ostensibly, concern with TBDF has often been couched in terms of privacy protection, cultural autonomy, or national sovereignty by countries inclined to restrict such flows by various regulations. Dispassionate analysis generally suggests a hidden agenda, namely protectionist economic motives akin to more conventional barriers in international trade of goods.

It has been usefully suggested that concern with TBDF is in many instances misplaced. Preoccupation with content rather than conduit masks the underlying issue, which is guaranteed market access to data bases and transmission facilities across international boundaries:

Most corporate data flows with relative ease between countries and most problems are resolved amicably when they arise. If market access is assured, most information flow problems will take care of themselves. Putting too much emphasis on the free flow of data could overload the [GATT] talks and cause a backlash against market access.²²

As interconnection and access increase globally, the increased temptation to tax, regulate, or otherwise impede the free flow of information will tend to isolate the countries doing so, particularly as broadband integrated services digital networks (ISDNs) proliferate internationally.²³

C. Trade in Services and International Organizations

The GATT and the ITU in particular find themselves in the force field of a jurisdictional battle that may not be resolved in the near future. The issue sharpened somewhat during the World Administrative Telegraph and Telephone Conference (WATTC) held in Melbourne in late 1988 under ITU

20. Jussawalla Meheroo, *International Trade and Welfare Implications of Transborder Data Flow*, in POLICY RESEARCH IN TELECOMMUNICATIONS: PROCEEDINGS FROM THE ELEVENTH ANNUAL TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE 400-10 (Vincent Mosco ed., 1984).

21. Meheroo Jussawalla & Chee-wah Cheah, *International Trade and Information: Some Welfare Implications*, in COMMUNICATION AND INFORMATION ECONOMICS: NEW PERSPECTIVES 51-71 (Meheroo Jussawalla & Helene Ebenfield ed., 1984); MEHEROO JUSSAWALLA & CHEE-WAH CHEAH, *THE CALCULUS OF INTERNATIONAL COMMUNICATIONS: A STUDY OF THE POLITICAL ECONOMY OF TRANSBORDER DATA FLOWS* (1986).

22. ARONSON & COWHEY, *supra* note 7, at 250-51.

23. *Id.* at 251.

auspices. At the same time GATT negotiators in Uruguay were grappling with the trade in services issue.

An ITU official assured a telecommunications gathering the following month that the WATTC had "achieved a working compromise in a cooperative spirit and that no 'winners' had emerged."²⁴ He saw the ITU's hand in the important trade-in-services area as having been "strengthened" with respect to the GATT machinery.²⁵ Other observers were less sanguine about the outcome.

An industry representative characterized the ITU\GATT dichotomy succinctly:

It is clear that neither the ITU nor the GATT could effectively usurp the duties of the other. . . . However . . . [t]his jurisdictional issue is symbolic of the greater issue we all face in our own countries: to what extent should telecommunications be closely regulated or left to develop under more general market forces? That is a question each sovereign nation must face, and the aggregate will undoubtedly be reflected in the balance of power struck between the ITU and the GATT.²⁶

Of course, jurisdictional disputes among international organizations are nothing new, and, to a certain extent, the tension and counterpoint of their shifting priorities and responsibilities can be salutary to all. In addition, entities other than the ITU and the GATT also have interests and competencies that impinge on trade in information services. The OECD, for example, has in recent years concerned itself with TDBF and the associated issues of privacy and national sovereignty. Snow and Jussawalla, under OECD auspices, undertook an explicit examination of trade, technology and interdependence.²⁷

Another emerging forum for the consideration of trade-in-services questions is the EC, which is presently preparing for the harmonization of its twelve members into a stronger federal union at the end of 1992. Originally, the EC and its Commission had little interest in or jurisdiction over telecommunications trade matters. In the early 1980s, however, the European Commission became concerned that the fragmentation of European telecommunications put the EC at a disadvantage with respect to the United States and Japan. Several initiatives resulted from this realization: (1) a

24. Marcellus S. Snow, *Pacific Telecommunication Connectivity*, 13 TELECOMMUNICATIONS POL'Y 170 (1989).

25. *Id.*

26. Dana Theus, *WATTC and GATT: Help or Hinderance?*, in PROCEEDINGS PACIFIC TELECOMMUNICATIONS COUNCIL ELEVENTH ANNUAL CONFERENCE 115 (L.S. Harms & Dan Wedemeyer eds., 1989) (emphasis omitted).

27. Marcellus S. Snow & Meheroo Jussawalla, *Deregulatory Trends in OECD Countries*, in INFORMATION TECHNOLOGY AND GLOBAL INTERDEPENDENCE 21-39 (Meheroo Jussawalla, et al. eds., 1989).

protracted antitrust suit against IBM; (2) legal action against member states for discrimination against each other in telecommunications equipment procurement; (3) the formation of the European Strategic Program in Information Technology (Esprit), a ten-year (1984-1993) collaborative research program designed to help European information technology become "competitive on world markets within a decade;" (4) the formation of the program for R&D in Advanced Communications Technologies in Europe (Race) in 1985 to foster the research and development needed for the EC-wide introduction of ISDN by 1995; (5) the establishment, in 1985, of the European Research Coordinating Agency (Eureka), which is "designed to strengthen European productivity and competitiveness through cooperation of firms and research institutions in the area of high technology," including telecommunications; and (6) the issuance in 1987 by the EC Commission of the Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, arguing for harmonization and liberalization in Western European telecommunication services and equipment.²⁸

The influential Green Paper, for example, urges open telecommunications procurement within the EC as an ultimate goal. Regarding services, it proposes the liberalization of "enhanced" telecommunications services, which figure heavily in international trade in services. The latter goal is also supported by the recommendations of the Witte Commission,²⁹ a blue-ribbon panel formed by the West German Bundespost that issued a basically pro-trade report in 1988.

D. Merger of Computing and Telecommunications

Governments have historically structured and regulated telecommunications and computing in quite different ways. Prior to the mid-1970s virtually all forms of commercial public telecommunications were owned, operated and regulated by the state, generally through a post, telegraph and telephone (PTT) ministry. Computing, by contrast, arose and continues to thrive in an environment of *laissez-faire* in virtually all non-socialist industrialized countries. Nora and Minc, writing for the French government, were the first researchers to point out that telecommunications and computing, despite their vastly different regulatory regimes, were steadily merging from the

28. ARONSON & COWHEY, *supra* note 7, at 49, 201-03; Eli M. Noam, *International Telecommunications in Transition*, in CHANGING THE RULES: TECHNOLOGICAL CHANGE, INTERNATIONAL COMPETITION AND REGULATION IN COMMUNICATIONS 292-93 (Robert W. Crandall & Kenneth Flamm eds., 1989); Towards a Dynamic European Economy: Green Paper on the Development of the Common Market for Telecommunications Services and Equipment (COM (87)290 final 1987) [hereinafter Green Paper].

29. FEDERAL MINISTER OF POSTS AND TELECOMMUNICATIONS, REFORM OF THE POSTAL AND TELECOMMUNICATIONS SYSTEM IN THE FEDERAL REPUBLIC OF GERMANY (1988) [hereinafter WITTE REPORT].

standpoint of their technologies.³⁰

The way in which the regulatory apparatus in each country accommodates this merger will have obvious consequences for international trade in services. If the stricter regulatory regime for telecommunications were to predominate in the merging arena of telecommunications and computing technology, less international trade in services would result, other things being equal. Conversely, if the vastly more liberal regime governing computing services were applied, international trade in services would increase.

In general, the reaction to this asymmetric pattern of regulation across merging technologies appears to have been to liberalize the regulation of telecommunications rather than to tighten the regulation of computing. Thus, international trade in both telecommunications goods and services has benefitted thereby.

In the United States, this pattern has been borne out most clearly in the Computer I, Computer II, and Computer III proceedings conducted by the Federal Communications Commission (FCC). In its Computer I decision in 1971, the FCC prohibited the direct entry of the American Telephone & Telegraph Company (AT&T) into data processing, but it enabled other common carriers to access that market under a number of regulatory safeguards, such as the establishment of arm's-length subsidiaries.³¹ At issue in Computer II was the distinction between basic and enhanced services, which involved the development of new computing technology allowing the decentralization of computing functions to "intelligent" telecommunications terminals.³² Enhanced services were left essentially unregulated, and the old data processing/communications dichotomy was abandoned.³³ The Computer III inquiry, begun in 1985, unfolded in the context of the divestiture of the Bell system into several regional operating companies.³⁴ AT&T received some measure of pricing flexibility in new services and had some of its separate subsidiary restrictions removed.³⁵

This regulatory cognizance of the merger of telecommunications and

30. SIMON NORA & ALAIN MINC, *THE COMPUTERIZATION OF SOCIETY* (1980).

31. *In re* Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities, 28 F.C.C.2d 267, 287 (1971) (Final Decision and Order).

32. *See In re* Amendment of Section 64.702 of the Commission's Rules and Regulations, 61 F.C.C.2d 103 (1976) (Notice of Inquiry and Proposed Rulemaking); *In re* Amendment of Section 64.702 of the Commission's Rules and Regulations (Computer Inquiry), 64 F.C.C.2d 771 (1977) (Supplemental Notice of Inquiry and Enlargement of Proposed Rulemaking) [hereinafter Computer II].

33. *See* Computer II, 64 F.C.C.2d at 776, 777.

34. *See In re* Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), 104 F.C.C.2d 958 (1985) (Report and Order).

35. *Id.*

computing has resulted in liberalized regimes in other countries as well.³⁶ Most dramatically, both Japan and the United Kingdom privatized their major domestic telecommunications carriers in 1985 and subjected them to some degree of domestic competition. In addition, the Green Paper of the European Communities³⁷ states: "the long-term convergence of telecommunications with audio-visual technologies must be taken into account, in addition to the current convergence between the telecommunications and data-processing sectors."³⁸ Further it notes the "blurring of the traditional boundary lines between [basic and value-added] services"³⁹ and makes appropriate regulatory suggestions.

Likewise, West Germany's Witte Report⁴⁰ acknowledges the regulatory consequences of disappearing distinctions between various service categories: "[T]he principle of competition is in future to be the rule in telecommunications while the public provider monopoly will be the exception that has to be duly justified."⁴¹

E. Standard Setting and the ISDN

The ambitious plans for global integrated services digital network (ISDN) services by the mid-1990s or earlier illustrate the degree to which standard setting at the national and international levels can influence the extent and composition of information-based services in international trade.

Economically and technically optimal standard setting must follow a perilous course between two undesirable extremes. If too many standards are imposed too soon, creativity and market forces may be stifled; if too few standards are imposed too late, economically wasteful duplication, disorder and fragmentation may result.⁴²

Seen differently, the market, technical, and regulatory forces are such that even when everyone can benefit from standardization, there is no assurance that the optimal standard, or indeed any standard, will be chosen. Standards may be used strategically by firms and regulatory bodies for competitive purposes. These entities may promote either relative incompatibility or compatibility, depending upon whether they wish to impede the spread of rival technologies and systems or to promote their own. Patterns of standardization in the United States and Western Europe are instructive in

36. See MARKETPLACE FOR TELECOMMUNICATIONS: REGULATION AND DEREGULATION IN INDUSTRIALIZED DEMOCRACIES (Marcellus S. Snow ed., 1986); ROBERT R. BRUCE, ET AL., FROM TELECOMMUNICATIONS TO ELECTRONIC SERVICES: A GLOBAL SPECTRUM OF DEFINITIONS, BOUNDARY LINES AND STRUCTURES (1987).

37. Green Paper, *supra* note 28.

38. *Id.* at 14.

39. *Id.* at 33.

40. WITTE REPORT, *supra* note 29.

41. *Id.* at 4.

42. Snow, *supra* note 24, at 171.

this regard. In the United States, the standardization previously inherent in the AT&T system has been gradually replaced by a regime under which substantial autonomy is enjoyed by all participants. Voluntary standard setting has become more prominent in this process. In Western Europe, however, where each country previously enjoyed considerable leeway in the establishment of its own standards, countries are now relinquishing a good deal of the independence in order to benefit from more rapid technical change.⁴³

A common American reaction to early European proposals for ISDN design standards, for example, was that those standards were too restrictive. While many early hesitations may appear in retrospect to have been overstated, they do bear an important kernel of truth. The concern persists that the design of the ISDN, through restrictions on user access, for example, can be used to "limit the competition faced by the operators of a transmission network," thereby giving rise to conflicts between users and suppliers. While users typically want to maximize their service options, providers often wish to limit such options in order to maximize their operating efficiencies and minimize their financial losses to competitors.⁴⁴

United States concerns respecting overly strict standard setting for the ISDN presently center less on the threat of "hegemonial" systems⁴⁵ than on the very real possibility of a kind of "benign mercantilism" that would affect U.S. interests adversely in three primary ways. First, European information companies, having agreed among themselves, could influence the establishment of standards and software, making it easier for European equipment manufacturers to compete against IBM. Large European users would have local or European alternatives to IBM's information systems. Second, data communications, constrained by the pace of ISDN installation, would develop more slowly. Since Europe lags in this market, it would have a respite to catch up. Third, national producers in Europe can be favored by an ISDN that influences the mix of equipment sales and other procurement patterns.⁴⁶

F. Policy of the GATT Uruguay Round Toward Trade in Services⁴⁷

Despite lack of a comprehensive agreement to date, the Uruguay Round

43. Stanley M. Besen & Garth Saloner, *The Economics of Telecommunications Standards*, in CHANGING THE RULES: TECHNOLOGICAL CHANGE, INTERNATIONAL COMPETITION AND REGULATION IN ECONOMICS 219-20 (Robert W. Crandall & Kenneth Flamm eds., 1989).

44. *Id.* at 213-14.

45. Noam, *supra* note 28.

46. ARONSON & COWHEY, *supra* note 7, at 187-91.

47. For details see *Center of the Study of International Economic Relations*, THE URUGUAY ROUND AND BEYOND: THE FINAL REPORT (Press Release, 1989); *Midterm Review: Final Agreement at Geneva*, GATT NEWSLETTER, May 1989, at 1-3; GATT, Information and Media Relations Division, *News of the Uruguay Round of Multilateral Trade Negotiations*, July 7, 1989, at 6-8; and Marcellus S. Snow, *Telecommunications Trade is an Emerging Issue for Asia During Uruguay Round of GATT Talks*, ASIAN WALL ST. J. WKLY., Oct. 22, 1991, at 9B-10B.

of the GATT has made considerable progress. Two major trends are (1) the large number of developing countries that have undertaken the unilateral liberalization of trade restrictions; and (2) changes in approach to the GATT, in particular the increased participation of developing countries in the Uruguay round. For example, 170 out of the first 400 proposals were put forward by developing countries. Measures undertaken by South Korea, for example, include a commitment to reduce tariffs at an annual rate of 8 percent through 1993, and a three-year plan to free all manufactured goods and many agricultural products from discretionary import licensing.

Early in the Uruguay Round, GATT representatives formed fifteen negotiating groups, one of which was assigned the topic of trade in services. It adopted the following ten subject areas for discussion and negotiation: definition and statistical issues, principles and rules, multilateral arrangements, existing arrangements relating to services, measures and practices affecting the expansion of trade in services, foreign investment, international labor mobility, national treatment, receiver mobility, and the right of establishment in host countries of foreign affiliates of multinational firms providing internationally traded services.

The GATT's trade in services group met for a week during the summer of 1989. Most of its deliberations focused on the telecommunications and construction sectors. Regarding telecommunications, there was a majority view to the effect that GATT policies relating to trade in services should initially apply only to enhanced services and not to basic services. The close connection between telecommunications goods and services was noted and examined, as was the intimate link between the telecommunications sector and other service industries such as banking and tourism. Representatives of some countries stressed the security and privacy aspects of telecommunications flows, while several from developing countries emphasized the need for subsidizing rural telephone services by excess revenues from more remunerative activities.

In December 1990 at Brussels, the Chair of the Ministerial Meeting of GATT's Trade Negotiations Committee stated that disagreements among negotiating partners were sufficiently strong to prevent the conclusion of the Uruguay Round at that meeting, reportedly "due to EC inflexibility in meeting the demand of the US [sic] and Cairns Group [of 14 agricultural exporting countries] for an internationally agreed programme of reform that would ensure far-reaching reductions in farm subsidies," estimated at \$220 billion a year worldwide.⁴⁸

48. William Dullforce, *Hopes Rising for GATT Salvage Job*, FIN. TIMES, Feb. 1, 1991, at 7.

III. TRADE IN INFORMATION SERVICES: THE ASEAN COUNTRIES AS A CASE STUDY

A recent comprehensive report on economic relations between the United States and the seven ASEAN countries devotes considerable attention to issues of trade in services and direct foreign investment.⁴⁹ Snow, in an article amplifying his role in the project, discusses banking, telecommunication, and intellectual property as objects of trade in services between the United States and ASEAN.⁵⁰ The report is important because, although it is technically unofficial, it was financed by the United States Agency for International Development (USAID) on the American side and the United Nations Development Program (UNDP) on the ASEAN side. Technically termed the ASEAN-U.S. Initiative, the project's final report was authored by scholars at the East-West Center and University of Hawaii in Honolulu and at the Institute for Southeast Asian Studies in Singapore.

The report's chapter on trade in services begins by noting that U.S. service industries in recent years have contributed to a rapid rise in DFI, increasing the services share of total U.S. DFI from 20 to 25 percent in the eight years preceding 1983.⁵¹ As to the definition of traded services, the report views them as "transborder transactions by service industries which do not require the establishment of foreign affiliates through DFI."⁵² Following this definition, the ASEAN-U.S. researchers determine the DFI in services and sales of foreign affiliates are "far more important than trade in services for the United States."⁵³ The issue is

more the question of whether U.S. firms in the service industries have a firm-specific competitive edge not bound to a particular location and less whether the United States has a comparative advantage in service industries. . . . [A] country's comparative advantage and the competitiveness of its firms are not the same because firms in certain industries which are highly mobile internationally may be very competitive in foreign countries even though their native country, given its immobile factor endowments, does not have a comparative advantage in these industries. Thus, it is quite possible that, although there has not been any significant

49. INSTITUTE OF SOUTHEAST ASEAN STUDIES AND THE EAST-WEST CENTER, ASEAN-U.S. INITIATIVE: ASSESSMENT AND RECOMMENDATIONS FOR IMPROVED ECONOMIC RELATIONS (Seiji Naya, et al. eds., 1989) [hereinafter ASEAN-U.S. Initiative].

50. Marcellus S. Snow, *Facilitating ASEAN-U.S. Trade and Direct Foreign Investment in Information Services: Alternative Policies and Their Effects*, 6 ASEAN ECON. BULL., July 1989, at 31-45.

51. ASEAN-U.S. INITIATIVE, *supra* note 49, at 64.

52. *Id.* at 66.

53. *Id.* at 67.

change in the comparative advantage of the United States with respect to service industries, some of the firms in these industries have recently gained a competitive edge which allows them to compete in the global market for services.⁵⁴

Given a definition of trade in services as narrow as that proposed by the ASEAN-U.S. Initiative, it is clear that DFI in services should be considered as intimately related to trade issues in conceptual and policy settings.

The report highlights the most important sectoral contributions to trade in services in each ASEAN country. In Brunei, the dominant sector is government services, including wholesale and retail trade. In Indonesia it is shipping, most of which is related to the petroleum industry. Malaysia's primary traded services sector is travel, while "other services," including construction, operating expenses, commissions, and fees are the dominant traded service category in the Philippines. Tourism furnishes the highest earnings for Singapore's trade with the United States. Singapore also attracts by far the largest amount of U.S. DFI in services among the ASEAN countries. The latter amounted to \$529 million in 1985, or 27.9 percent of total U.S. investment in Singapore. Thailand exhibits deficits in services trade with all of its major trading partners except for other ASEAN nations. The only surpluses are in the areas of travel and tourism.⁵⁵

Government policies toward services trade vary considerable among ASEAN countries. The ASEAN-U.S. researchers classified these policies along the following criteria: (1) national treatment (non-discriminatory applicability of domestic laws and regulations to domestic and foreign firms); (2) least restrictive regulations (regulation in the least restrictive manner possible in cases where regulation is deemed justified); (3) non-discrimination (the application of the most-favored-nation criterion to services); (4) right to sell (allowing market access to foreign service firms); (5) transparency (open and unambiguous regulations and laws restricting trade); and (6) subsidies (identifying their distorting effects and adverse influence on producers of services).⁵⁶

Judged by these criteria, the ASEAN-U.S. researchers found unjustified barriers to trade in several sectors of the ASEAN countries studied. In Brunei, the researchers found no barriers to trade in services. In Indonesia, however, the researchers found barriers in the insurance, leasing, motion pictures, franchising, and maritime transportation sectors. In addition to barriers in the insurance, leasing and motion picture sectors, Malaysia also employs barriers in the advertising sector. The researchers also found barriers in banking, franchising, insurance, motion pictures, air and maritime transportation, and advertising in the Philippines. In Singapore, the

54. *Id.* at 68.

55. *Id.* at 69.

56. *Id.* at 70.

researchers found barriers in insurance, maritime transportation, and banking. In Thailand, barriers were found in advertising, banking, insurance, leasing, motion pictures and air transportation.⁵⁷

Based on these criteria and nationally imposed barriers, the ASEAN-U.S. Initiative report makes several policy recommendations for both ASEAN and the United States. First, the report recommends greater liberalization and an enhanced role for private enterprise in the information sector. Second, it recommends revision of U.S. antitrust laws to facilitate trade in services by U.S. firms. Third, relaxation of foreign equity control on foreign investment in ASEAN countries is recommended. Fourth, The report recommends relaxing controls on foreign banking. Fifth, the U.S. should continue to emphasize export consciousness by the private sector. Sixth, the report recommends relaxing limits on professional services by foreigners. Seventh, the ASEAN countries should reduce marketing restrictions. Finally, the report recommends developing better theory and data on trade in services.

The ASEAN-U.S. researchers predicted several major benefits that would flow from implementing these regulations. First, they predicted that ASEAN countries would make a transition to export-oriented, high-growth trade patterns stressing comparative advantage, production efficiency and technology transfer, rather than self-sufficiency and import substitution. Also, they predicted greater allocative efficiency in the United States and in the ASEAN countries as well as absolutely and relatively lower producer prices. Third, they predicted that a liberalized information sector would play a vital role in stimulating overall economic growth, particularly through telecommunications in establishing broader and more efficient markets.⁵⁸

Another major benefit predicted is greater government efficiency due to market incentives and potential competition from the private sector in services traditionally offered by governments. The researchers also predicted greater technology transfer, aided by trade in high-technology services. Finally, they predicted desirable socio-cultural effects, such as the development of a stronger middle class, reduction of bribery and corruption and the replacement of authoritarian and centralized political cultures by pluralistic democracies.⁵⁹

Reflecting somewhat the recommendations of Aronson and Cowhey with respect to the GATT framework as a whole,⁶⁰ the ASEAN-U.S. researchers propose an umbrella agreement between ASEAN and the United States that would provide for more specific bilateral agreements, all of which would be "consistent with GATT." Indeed bilateral ASEAN-U.S. trade and investment agreements could "complement" the GATT talks and "provide an

57. *Id.* at 70-72,

58. *Id.* at 78-80; Snow, *supra* note 50, at 42-44.

59. *Id.*

60. ARONSON & COWHEY, *supra* note 7, at 236-37.

exemplary framework in certain areas.”⁶¹ Individual accords could include, most comprehensively, an ASEAN-U.S. free-trade agreement. Other topics might include subsidies, double taxation, intellectual property rights, investment, services, tariffs, non-tariff barriers, and safeguards codifying standards and establishing disciplinary measures. The services agreement would deal on a priority basis with definition of services, non-discriminatory treatment, transparency, dispute settlement, and enforcement.⁶²

CONCLUSION

The foregoing considerations suggest a number of policy conclusions regarding international trade in telecommunications and information services.

(1) Telecommunications services must be seen in the larger context of the information services sector, indeed as the “nerve center” of that sector. The growth of the information sector is in turn fueling the qualitative transformation of the late twentieth century world economy. Nearly all internationally traded services are information based.

(2) DFI and trade in services are intimately linked and should be considered in concert for purposes of definition, model construction, data gathering, and policy analysis. Services are becoming increasingly tradable without the intermediation of foreign “service establishments.” A multinational firm may be competitive in the world market for certain services even though the country in which it is headquartered does not enjoy a comparative advantage in trading those same services.

(3) Since it concentrates on content rather than conduit, TBDF as an issue often masks other, more basic concerns, such as protectionism. Assured market access will help most information flow problems sort themselves out.

(4) The GATT is the primary forum for facilitating freer international trade in service, although the ITU, the OECD, the United Nations, and the EC have also been helpful. The present Uruguay Round is progressing gradually but perceptibly toward formally incorporating trade in services into GATT’s negotiation and treaty machinery.

(5) The inexorable merger of telecommunications and computing technologies and services has led to deregulation and liberalization of telecommunications in virtually all industrialized countries. This trend is gradually liberalizing trade in all information-based services.

61. ASEAN-U.S. INITIATIVE, *supra* note 49, at 191.

62. *Id.* at 190-96.

(6) Too strict standard setting for information services such as ISDN can impede international trade in services. Standard setting can be used strategically by governments to prevent foreign competition or to favor preferred domestic suppliers.

(7) As a recent in-depth study of ASEAN-U.S. economic relations articulates, liberalized trade in services is a vital factor in sustaining economic growth, efficiency, and development in industrialized and industrializing countries alike